Radial Basis Function Networks For Contingency Analysis Of Bulkpower Systems

Refaee, J.A. Mohandes, M. Maghrabi, H.;Dept. of Electr. Eng.Res. Inst., King Fahd Univ. of Pet.Miner., Dhahran;

Power Systems, IEEE Transactions on;Publication Date: May 1999;Vol: 14,Issue: 2

Summary

Radial basis function networks (RBFNs) are used for contingency evaluation of bulk power system. The motivation behind this work is to exploit the nonlinear mapping capabilities of RBFN in estimating line loading and bus voltage of a bulk power system following a contingency. Unlike most of the available neural networks based techniques, the proposed method utilizes the potential of RBFN in planning studies. The performance of the RBFN is compared with a standard AC load flow algorithm